

KARTHIKEYAN BHARGAVAN

Curriculum Vitae

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PERSONAL DATA

Date of Birth 7 March, 1976
Nationality Indian
Languages English, Hindi, Tamil, French (Beginner)

EDUCATION

1999–2003 **Ph.D.** University of Pennsylvania
Dept. of Computer and Information Science, Philadelphia PA, USA
Dissertation Title: Network Event Recognition
Supervisor: Prof. Carl A. Gunter
Degree Awarded: December 2003
Awarded *The Morris and Dorothy Rubinoff Dissertation Award*

1997–1999 **M.S.** University of Pennsylvania
Master of Science in Engineering
Dept. of Computer and Information Science, Philadelphia PA, USA

1993–1997 **B.Tech.** Indian Institute of Technology
Bachelor of Technology
Dept. of Computer Science and Engineering, New Delhi, India

EMPLOYMENT

2009–Present *Chargé de recherche*, INRIA, Paris-Rocquencourt France
Research on programming languages and security (Project MOSCOVA).

2009–Present *Chargé d'enseignement*, Ecole Polytechnique, Paris France
Part-time teaching in Computer Science.

2004–2009 *Researcher*, Microsoft Research, Cambridge UK
Research on refinement type systems, cryptographic protocol verification.

2002–2004 *Post-Doctoral Researcher*, Microsoft Research, Cambridge UK
Research on web services security, optimistic replication algorithms.

2000-2001 *Research Consultant*, Bell Laboratories, Lucent Technologies, Naperville USA
Research on formal network monitoring.

- 1998–2002** *Teaching Assistant*, University of Pennsylvania, Philadelphia USA
 Instructor for Undergraduate courses on Programming Languages and Techniques.
 Instructor for Graduate courses on Programming Languages and Theory of Computation.
- 1998** *Summer Intern*, Bell Laboratories, Lucent Technologies, Murray Hill USA
 Research on the formal specification of DSP instruction sets.

GRANTS

- 2010** ERC Starting Independent Researcher Grant 2010
Grant Title: CRYSP: A Novel Framework for Collaboratively Building
 Cryptographically Secure Programs and their Proofs
Grant Amount and Duration: 1,406,726 euros, 5 years

INVITED TALKS AND LECTURES

- 2010** *Visiting Lecturer*, Indian Institute of Technology, Delhi India
2009 *Lecturer*, SFM 2009 School on Formal Methods, Bertinoro, Italy
2007 *Invited Lecture*, SIN 2007 Conference on Security of Information and Networks,
 Gazimagusa, North Cyprus
2005 *Lecturer*, CIMPA-UNESCO-INDIA School, Bangalore, India
2004 *Invited Lecture*, Santa's Crypto Get-Together, Prague, Czech Republic

PROFESSIONAL ACTIVITIES

- 2010** *Program Committee Member*,
 Modelling and Verifying Parallel Processes,
 Interaction and Concurrency Experience
- 2009** *Program Committee Member*,
 International Workshop on Security and Trust Management
- 2005-2010** *Program Committee Member*,
 International Workshop on Web Services and Formal Methods
- 2008** *Co-Organizer*, Workshop on the Rise and Rise of the Declarative Datacenter
Program Committee Member,
 ACM Symposium on Applied Computing (SVT Track),
 ACM Workshop on Formal Methods in Security Engineering
- 2006** *Program Committee Member*,
 International Conference on Computer-Aided Verification
- 2002–Present** *Journal and Conference Reviewer*,
 Information and Computation,
 ACM Transactions on Programming Languages and Systems,
 IEEE Security and Privacy,
 ACM Conference on Computer and Communications Security,
 ACM Symposium on Principles of Programming Languages
 European Symposium on Programming

RESEARCH INTERESTS

Languages and methods for the specification, verification, and monitoring of software
 Security protocols and architectures
 Distributed programming, algorithms, and network Protocols
 Declarative approaches to datacenter programming

REFERENCES

Jean-Jacques Lvy,
Directeur de Recherche
INRIA Rocquencourt
Domaine de Voluceau-Rocquencourt
B.P. 105, 78153 Le Chesnay, France

Andrew D. Gordon
Principal Researcher
Microsoft Research
7 JJ Thomson Avenue,
Cambridge CB3 0FB, UK

Carl. A. Gunter
Professor
Dept of Computer Science, Siebel Center
University of Illinois at Urbana-Champaign
201 N. Goodwin, Urbana, IL 61801-2302, USA

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